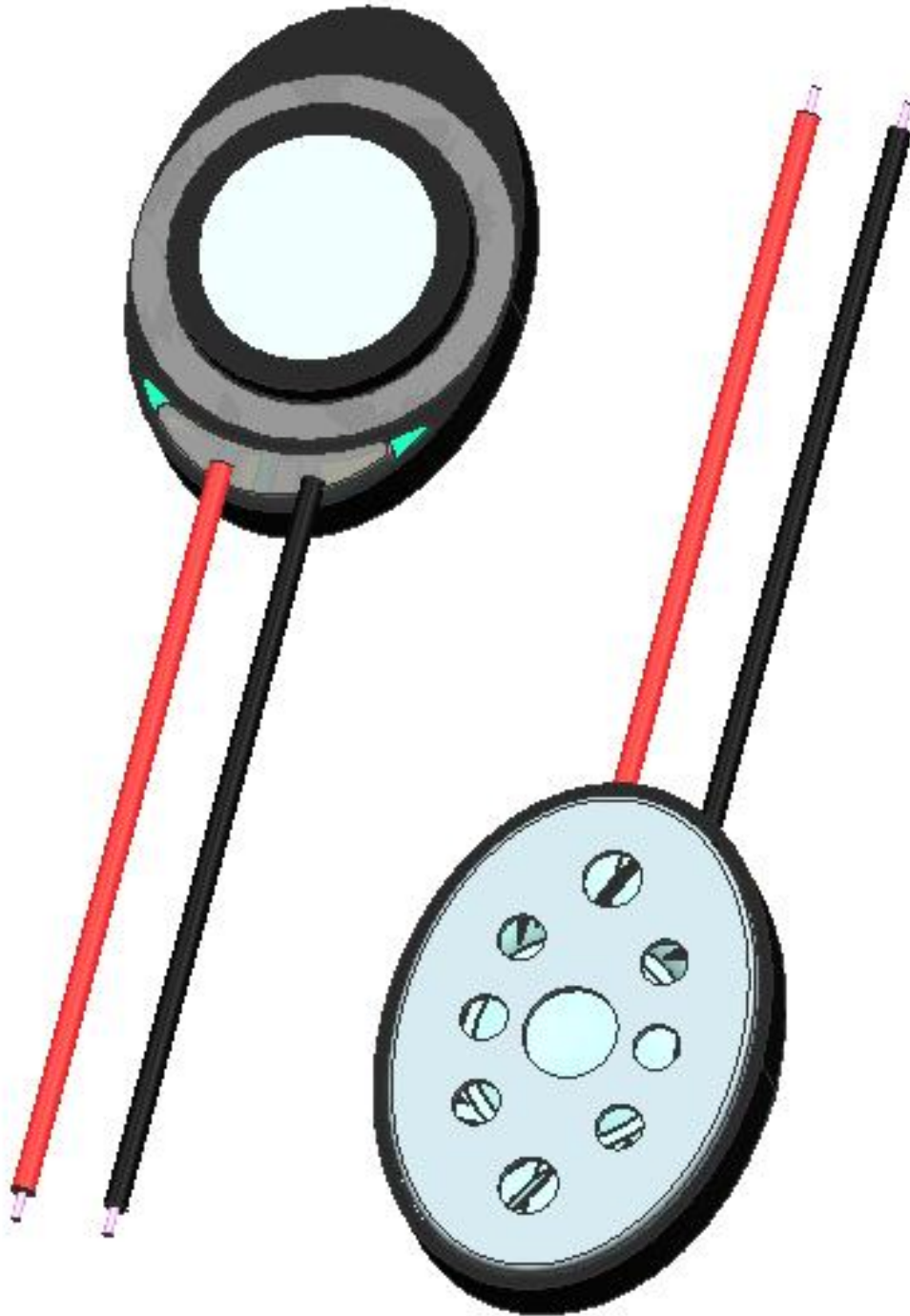


# SPECIFICATION

BMS1813-11C-08H3.8RW025 LF





# APPROVAL SHEET FOR SMARTPHONE SPEAKER

TOTAL PAGE

13

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RoHS

## Preliminary Specification For The Acoustic Characteristics of Dynamic Speaker

Customer		Model Name	BMS1813-11C-08H3.8RW025 LF
Customer P/N		Product No.	137032
Date	10 Feb. 14	Issue No.	BS/TES01.1469A
Page	01 of 13	Issue Date	14/11/01

### Table of Contents:

1. Test Climatic Condition
2. Description
3. Characteristics
4. Test Setup
5. Drawing
6. Reliability Test
7. Packing
8. History Change Record

Drawn by	Checked by	Approved by	Customer approved

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# BMS1813-11C-08H3.8RW025 LF

## 1. Test Climatic Condition

- 1.1 Ambient Temperature :15°C~35°C, Preferably at 20°C
- 1.2 Relative Humidity:25% to 75%
- 1.3 Air Pressure:86kPa~106kPa

No.	Item	Specification
1.	Dimension	18X13X4.0(mm)
2.	AC Impedance	8 ±15%Ω(at 2kHz)
3.	Rated Input Power	0.7W
4.	Maximum Input Power	1.0W
5.	Frequency Frequency	1100±20%Hz
6.	Frequency Response	FO~20KHZ
7.	Output SPL	84±3dB (0.1W /0.1m) at 2.0KHz
8.	Distortion	≤10% ( at 1kHz)
9.	Buzzes & Rattles	must be normal at 2.36Vrms (sine wave)
10.	Operating Temperature	-20~+70°C
11.	Storage Temperature	-20~+85°C
12.	Weight	~1.5g

## 2. Description

- 2.1 Acoustic component Performance Specification
- 2.2 The present document specifies performance requirements for the acoustic characteristics of speaker

## 3. Characteristics

- 3.1 Electrical and Mechanical Characteristics

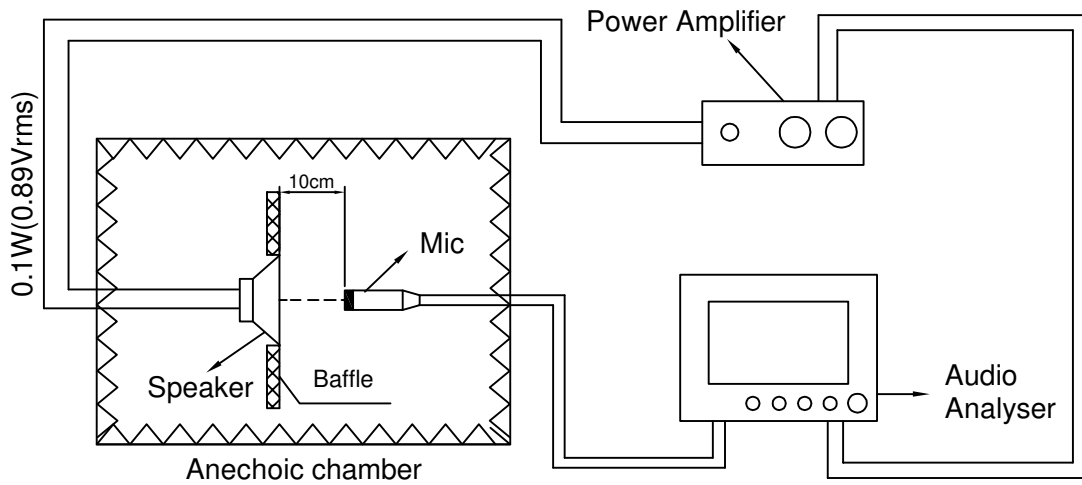
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# BMS1813-11C-08H3.8RW025 LF

## 4. Test Setup

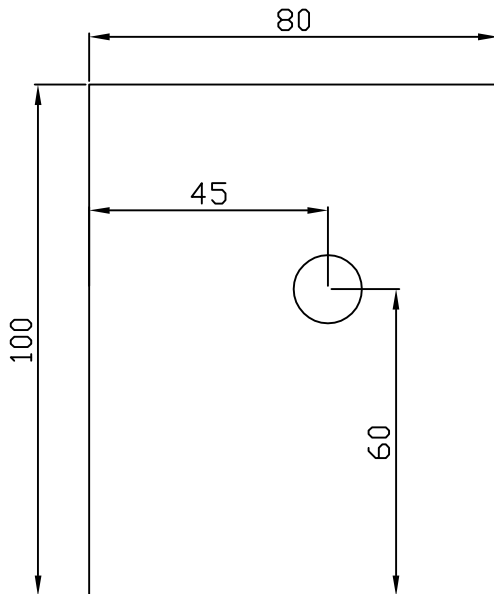
### 4.1 Speaker Measurement Circuit



### 4.2 Baffle Drawing

unit:cm

tolerance:±2



### 4.3 Test Method

The speaker shall be mounted in a baffle of the dimensions 80X100cm show figure 4.2,

The measuring free-field microphone shall be placed 10cm from DUT, on axis.

The test voltage is 0.1W and swept sine-wave range is 100Hz~20KHz with a R80 of test sequence

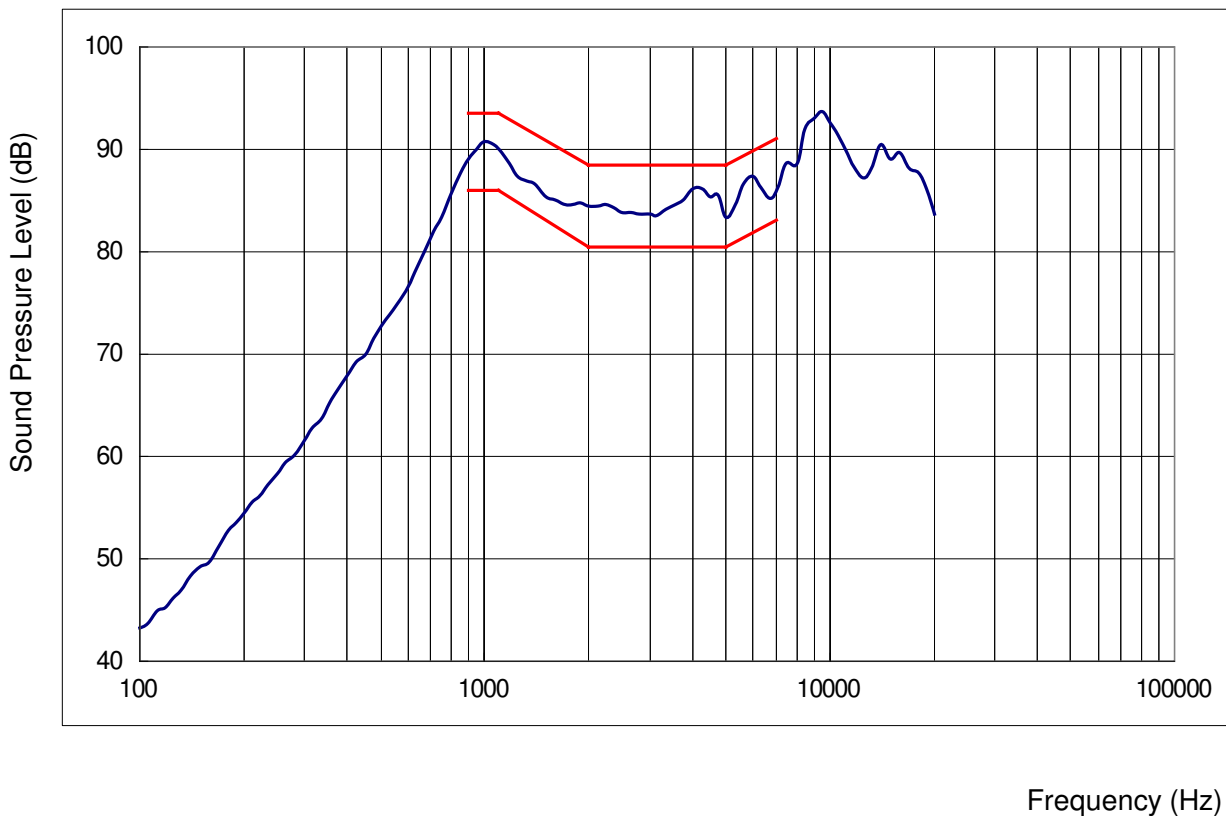
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# BMS1813-11C-08H3.8RW025 LF

## 4.4 Frequency Response Curve (only for reference)

A: Frequency Response Magn 0 dB re 20.00  $\mu$ Pa/V 1/12Oct



### 4.4.1 Sensitivity

SPL is expressed in dB rel 20  $\mu$ Pa, computed according to IEC 268-5. Measurement set up according chapter 4.1 and parameters according chapter 4.4.

This test is performed on the production line by 100%.

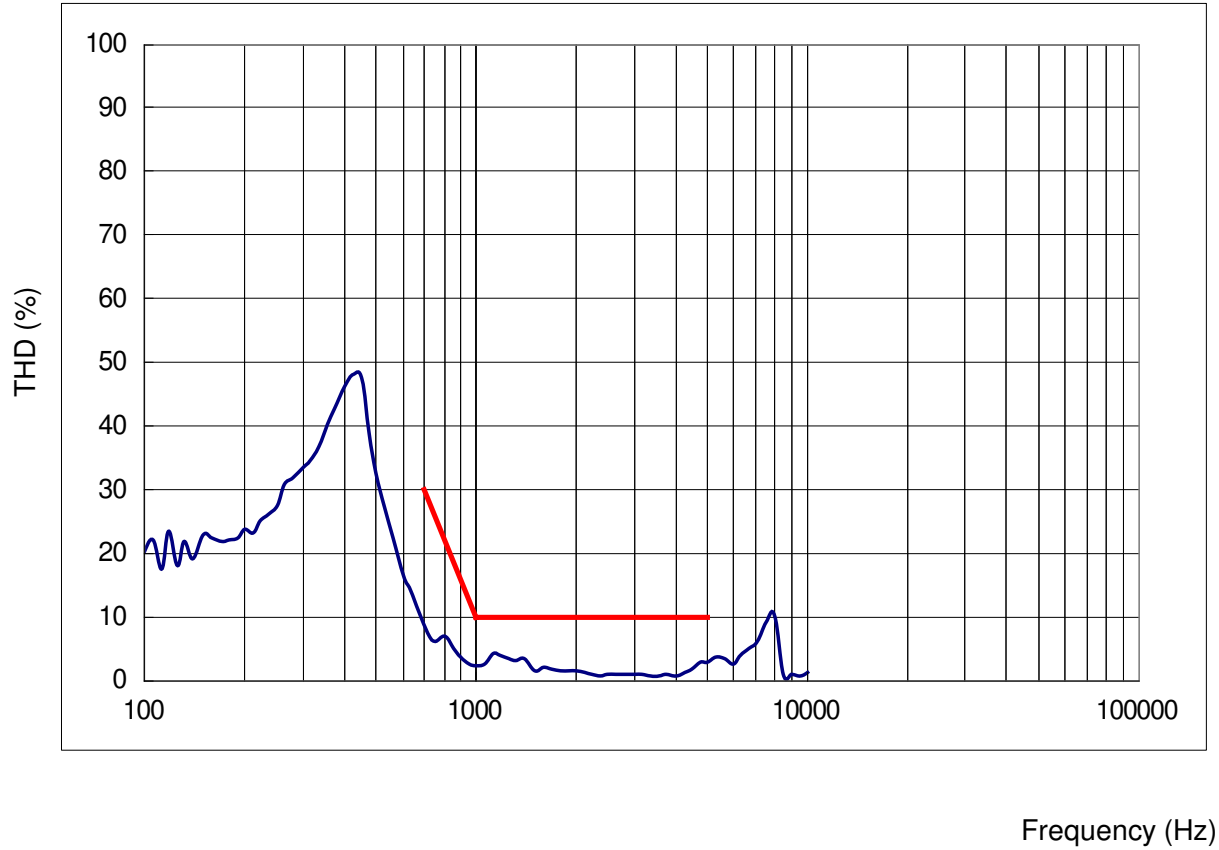
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# BMS1813-11C-08H3.8RW025 LF

4.5 Total Harmonic Distortion (only for reference)

A: Frequency Response Magn 0 dB re 20.00  $\mu$ Pa/V 1/12Oct



## 4.5.1 THD

THD is measured according test set up in chapter 4.1 and parameters according chapter 4.5

This test is performed on the production line by 100%.

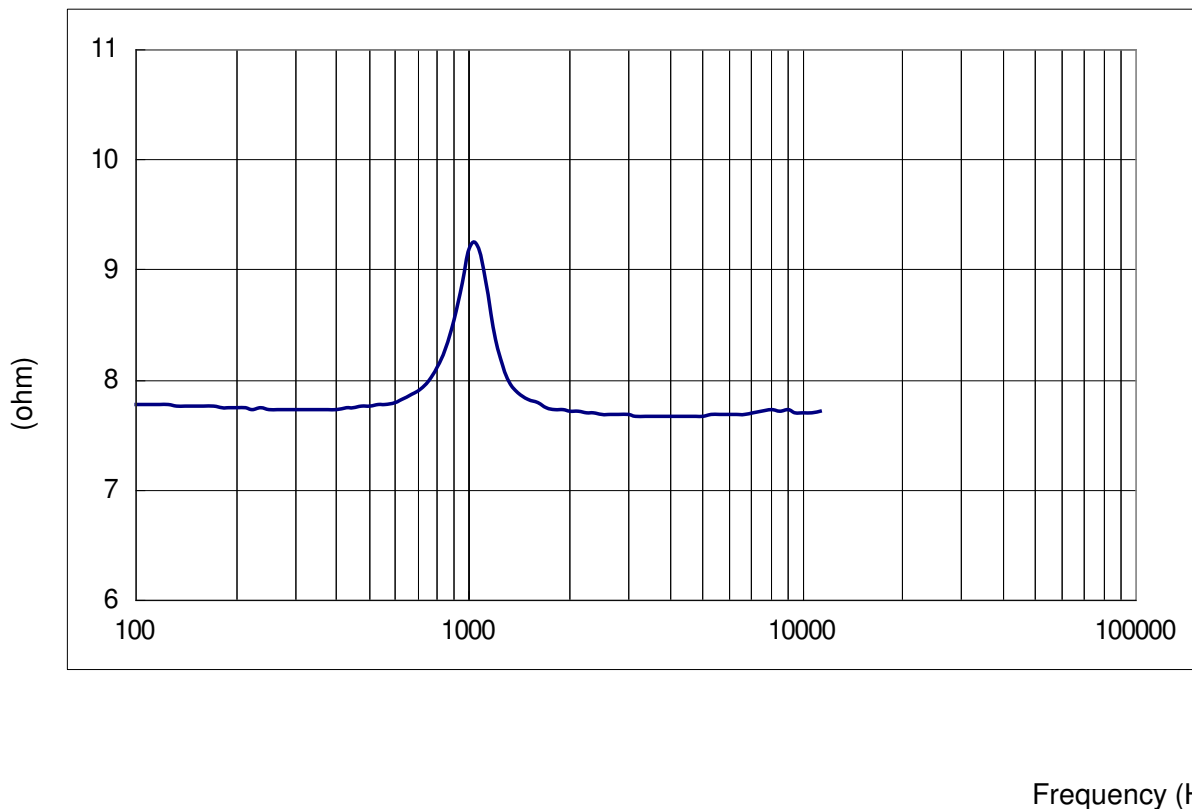
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# BMS1813-11C-08H3.8RW025 LF

4.6 F0 Curve (only for reference)

A: Frequency Response Magn 0 dB re 20.00 $\mu$ Pa/V 1/12Oct



## 4.6.1 Resonance Frequency

Resonance frequency is measured according test set up in chapter 4.1 and parameters according chapter 4.6

This test is performed on the production line by 100%.

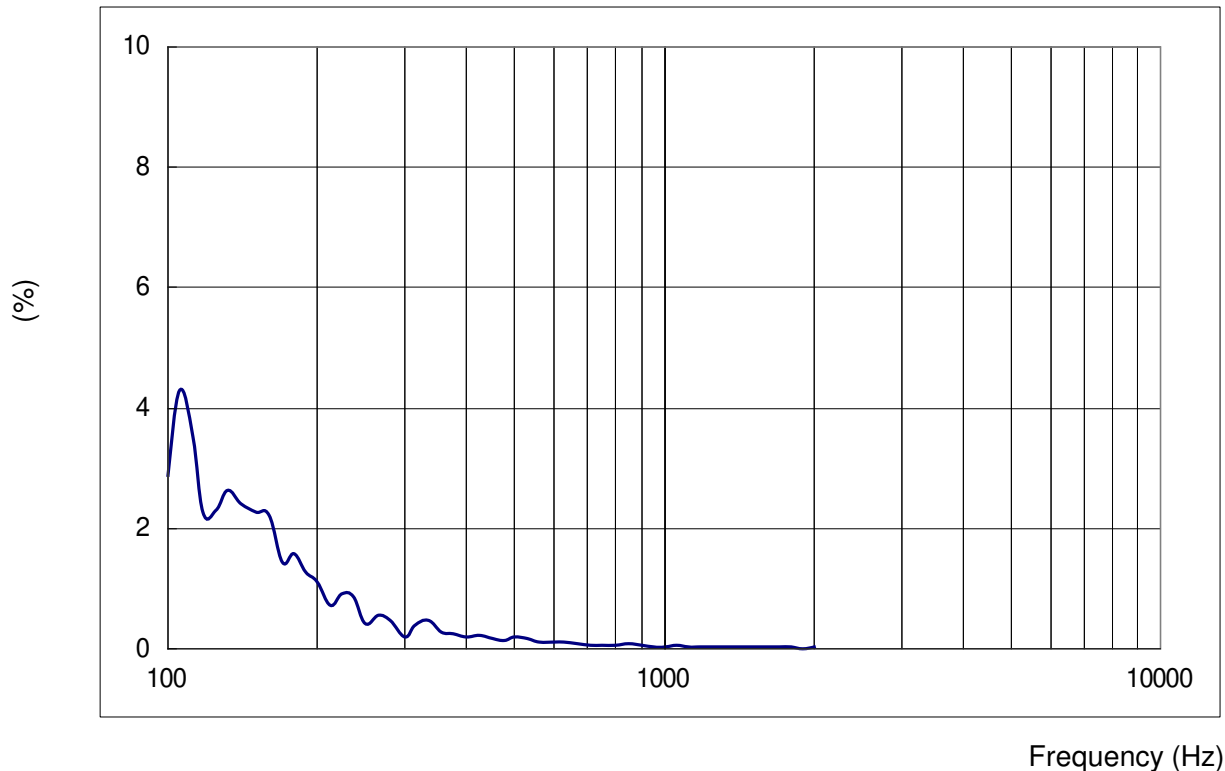
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4.7 R&B Curve (only for reference)

A: Frequency Response Magn 0 dB re 20.00 $\mu$ Pa/V 1/12Oct



## 4.7.1 R&B

R&B is measured according test set up in chapter 4.1 and parameters according chapter 4.7

This test is performed on the production line by 100%.

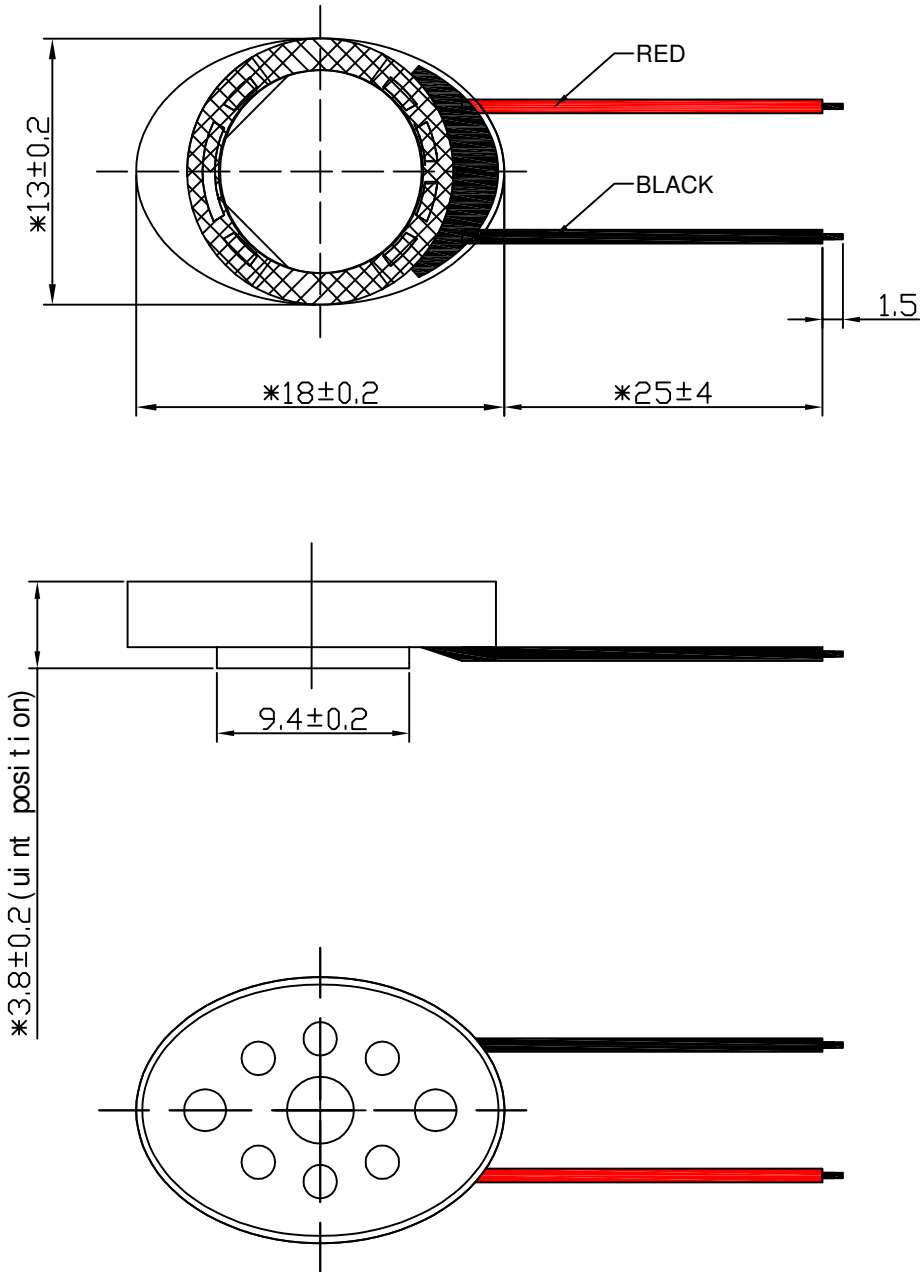
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5. Drawing

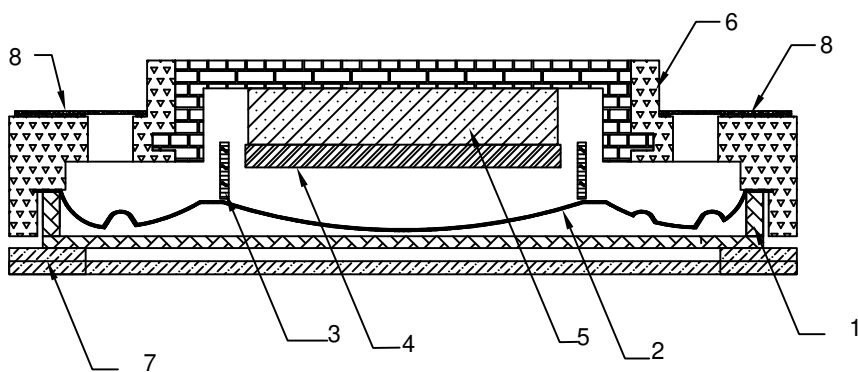


unit:mm  
tolerance:±0.2

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# BMS1813-11C-08H3.8RW025 LF



No	Description of the part	Material
1	Front Cover	SUS
2	Diaphragm	PEN
3	Coil	SDHT
4	Plate	SPCC
5	Magnet	Nd-Fe-B
6	Frame	PBT+SPCC
7	Net	Nonwoven
8	Net	Nonwoven

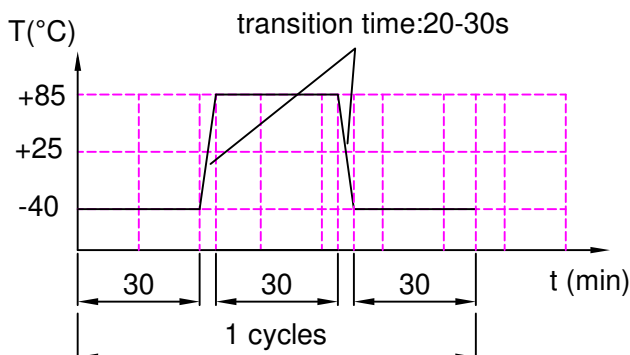
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# BMS1813-11C-08H3.8RW025 LF

## 6. Reliability Test

6.1 Load Test	
Power	0.7W (pink noise)
Duration	96hrs
6.2 High Temperature Test	
Temperature	+85±3°C
Duration	48hrs
6.3 Low Temperature Test	
Temperature	-20±3°C
Duration	96hrs
6.4 Damp Heat	
Temperature	40±3°C
Relative Humidity	90%-95%RH
Duration	96hrs
6.5 Temperature Cycle Test	
Cycle	4



6.6 Drop Test	
Height	100cm (in state of packing)
Times	10 (Drop onto hardwood board)

### Notice:

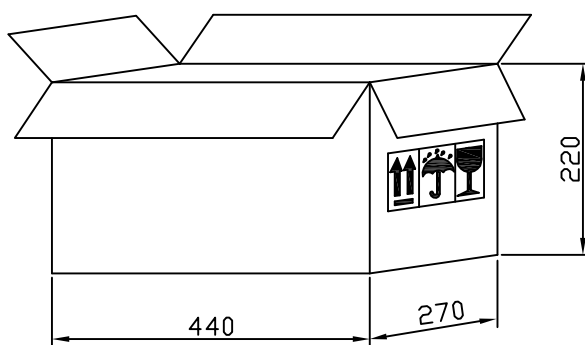
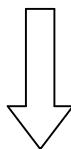
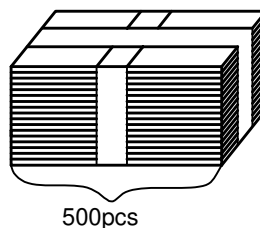
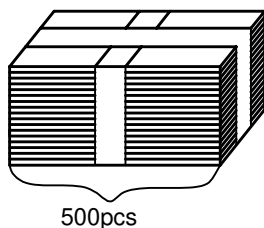
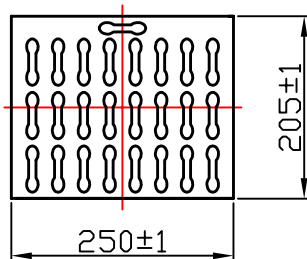
- 1.Immediately after reliability test,the samples shall be stored under climatic conditions such as normally exist in ordinary rooms or laboratories.Unless otherwise noted,the recovery period shall be 4hrs at least before performance testing.
2. After reliability test ,all samples must be meet the requirements specified
- 3.Sensitivity difference at 2~5KHz shall be within ±3dB from initial value after test.

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## 7. Packing



Remark:  
 50 pcs per tray  
 20 trays for unit, 2 units per carton  
 Total 2000pcs per carton  
 Size: 44×27×22(cm)

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